

WHAT IS CLAIMED IS:

1           1. A system for managing a plurality of file system processes within an  
2 audio/video file system, comprising:  
3                 a process status monitor for maintaining respective status information  
4 pertaining to said plurality of file system processes; and  
5                 a plurality of local process objects, each local process object having a plurality  
6 of variables stored at a dedicated location;  
7                 wherein each local process object corresponds to a file system process;  
8                 wherein said plurality of file system processes are executed in accordance with  
9 their corresponding status information; and  
10                 wherein upon execution of each of said plurality of file system processes, said  
11 plurality of variables from the corresponding local process object is retrieved from said  
12 dedicated location.

1           2. The system according to claim 1 further comprising:  
2                 a pointers control for maintaining a plurality of pointers;  
3                 wherein said plurality of pointers respectively point to said plurality of local  
4 process objects thereby allowing said plurality of variables of each of said plurality of local  
5 process objects to be retrieved.

1           3. The system according to claim 1 further comprising:  
2                 a process size indicator for maintaining size information for said plurality of  
3 file system processes.

1           4. The system according to claim 1, wherein said process status monitor  
2 is implemented using a bit string.

1           5. A system for managing a plurality of file system processes,  
2 comprising:  
3                 a process status monitor for maintaining respective status information  
4 pertaining to said plurality of file system processes; and  
5                 a plurality of local process objects, each local process object further  
6 comprising:  
7                 a progress monitor;  
8                 a callback function; and

9                   a set of application specific process properties;  
10                  wherein each local process object corresponds to a file system process.

1                 6.       The system according to claim 5, wherein said progress monitor is  
2 used to maintain state information for said file system process.

1                 7.       The system according to claim 6, wherein said state information  
2 includes an inactive state, a first-call state, a going-on state, and a last-call state.

1                 8.       The system according to claim 5, further comprising:  
2                   a process phase monitor;  
3                   wherein said process phase monitor is used to maintain phase information for  
4 said file system process.

1                 9.       A process control manager for managing a plurality of file system  
2 processes within an audio/video file system, comprising:

3                   a global process module having:

4                   a process status monitor for maintaining respective status information  
5 relating to said plurality of file system processes;  
6                   a plurality of local process objects, each local process object having a  
7 progress monitor, a callback function, and a set of application specific process properties,  
8                   a pointers control for maintaining a plurality of pointers, each pointer  
9 pointing to one of said plurality of local process objects; and  
10                  a process size indicator for maintaining size information for said  
11 plurality of file system processes.

1                 10.      The process control manager according to claim 9, wherein each local  
2 process object further includes a plurality of variables stored at a dedicated location;  
3                   wherein each local process object corresponds to a file system process; and  
4                   wherein upon execution of said file system process, said plurality of variables  
5 from said corresponding local process object is retrieved from said dedicated location.

1                 11.      A method for managing a plurality of file system processes within a  
2 file system, comprising steps of:  
3                   activating a file system process;  
4                   designating a callback function associated with said file system process;

5 retrieving one or more variables associated with said file system process;  
6 checking status of said file system process;  
7 activating other file system process(es), if necessary, to generate requisite  
8 input(s) for said file system process;  
9 performing calculations for said file system process using said variables and  
10 requisite input(s).

12. A method for managing a plurality of file system processes within an  
audio/video file system, comprising steps of:  
activating a file system process;  
designating a callback function associated with said file system process;  
retrieving one or more variables associated with said file system process;  
checking status of said file system process;  
determining whether other file system process(es) is needed to generate  
requisite input(s) for said file system process;  
storing said variables if other file system process(es) is needed;  
activating said other file system process(es), if necessary, so as to generate  
said requisite input(s);  
retrieving said variables upon completion of said other file system process(es);  
and  
performing calculations for said file system process using said requisite  
input(s), if necessary, and said variables.

13. The method according to claim 12, wherein said checking step further  
includes:  
checking whether said file system process is in an inactive state, and if said  
file system process is in said inactive state, generating an activation error message and  
terminating said file system process;  
checking whether said file system process is in a first-call state, and if said file  
system process is in said first call state, initializing said variables, setting said file system  
process to a going-on state and returning to said determining step;  
checking whether said file system process is in said going-on state, and if said  
file system process is in said going-on state, returning to said determining step; and

11                    checking whether said file system process is in a last-call state, and if said file  
12    system process is in said last-call state, deactivating said file system process and calling said  
13    callback function, and if said file system process is not in said last-call state, generating error  
14    message and terminating said file system process.